

REMARKS

Applicant wishes to thank the Examiner for the consideration given to this case to date. The interview kindly granted by the Examiner on November 14, 2006 is particularly acknowledged and appreciated. The interview served to materially advance the prosecution of this case by clarifying the issues. Applicant has now had an opportunity to consider the second Office Action, and respectfully submits that the claims of the subject application, as amended, are in condition for allowance.

Status Of Claims

The subject application was originally filed with 21 claims. In an Amendment dated June 16, 2006, Applicant cancelled claims 8, 13, and 15 without prejudice or disclaimer, amended claims 1, 2, 5-7, 9-12, 18, 20, and 23, and introduced new claims 25-28. In this Amendment, Applicant has amended claims 1, 16, 23, and 25 (by rewriting claim 25 in independent form). Upon entry of this Amendment, claims 1-7, 9-12, 14, and 16-28 will be pending in the subject application.

Office Action

In the second Office Action dated September 29, 2006, the Examiner:

- 1) objected to the drawings under 37 C.F.R. § 1.83(a);
- 2) rejected claims 1, 2, 7, 12, 14, 23, 24, and 26-27 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,525,008 issued to Wilson (“Wilson”);
- 3) rejected claims 3-6 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Wilson;
- 4) rejected claims 16-22 under 35 U.S.C. § 103(a) as being unpatentable over Wilson in view of U.S. Patent No. 6,352,387 issued to Briggs (“Briggs”); and

5) objected to claims 9-11 and 25 as being dependent upon a rejected base claim (i.e., claim 1), but stated that claims 9-11 and 25 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Objection to the Drawings

The Examiner objected to the drawings because they do not show every feature of the claimed invention, namely the separate injection points. Applicant respectfully disagrees with this objection. Fig. 4 of the subject application illustrates a top view of an exemplary remediation site that includes six (6) spaced-apart injection wells 65a-f, each of which represents a separate injection point (see also ¶0037 of subject application explaining Fig. 4). Accordingly, Applicant submits that the drawings show every feature of the claimed invention and, therefore the objection to the drawings should be withdrawn.

Remarks Common To All Prior Art Rejections

In response to the Examiner's rejection of claims 1-7, 12, 14, 16-24, and 26-28 of the subject application, Applicant wishes to offer some general remarks regarding the embodiments disclosed in the subject application, particularly vis-à-vis the invention disclosed in Wilson.

Wilson teaches a *single* injection step. An oxidant (hydrogen peroxide solution) is pumped into an injector mixing head (col. 9, line 18-22). A catalyst is simultaneously pumped into the same injector mixing head (col. 9, lines 22-25). The oxidant and the catalyst thereby form a “reactive solution,” which is injected under pressure using a pressurized gas (col. 3, line 64 through col. 4, line 7; col. 9, lines 17-35; col. 10, lines 56-63 referring to “the injection”).

Even assuming, *arguendo*, that Wilson could be construed to teach that the “reactive solution” and the pressurized gas are injected sequentially, Wilson teaches then, at most, *two*

injection steps of either: (1) a first oxidant and a second oxidant (if the pressurized gas is considered to be an oxidant); *or* (2) a first oxidant and a pressurized gas (if the pressurized gas is considered to be a means for expanding the zone of influence of the reactive solution). In any event, Wilson fails to teach at least three separate and distinct injection steps of: a first oxidant; a second oxidant *which is different from the first oxidant*; and a compressed gas.

Rejection to Claims 1, 2, 7, 12, 14, 23, 24, and 26-27 under 35 U.S.C. § 102(b)

Under 35 U.S.C. § 102, a claim is anticipated only if each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Applicant asserts that Wilson fails to expressly or inherently disclose each and every limitation recited in amended claims 1 and 23.

Wilson fails to disclose at least three separate and distinct injection steps of: a first oxidant; a second oxidant which is different from the first oxidant; and a compressed gas, as required by independent claims 1 and 23 in one form or another. Instead, Wilson specifically teaches the simultaneous injection of an oxidant, compressed air, and a metal salt catalyst. At most, Wilson teaches two injection steps of either: (1) a first oxidant and a second oxidant (if the pressurized gas is considered to be an oxidant); *or* (2) a first oxidant and a pressurized gas (if the pressurized gas is considered to be a means for expanding the zone of influence of the reactive solution).

Claims 2, 7, 12, 14, and 26-27 directly or indirectly depend from amended independent claim 1 and, thus, include each and every limitation contained in amended claim 1. Claim 24 depends directly from amended independent claim 23. As a result, Wilson fails to disclose the features recited in claims 2, 7, 12, 14, 24, and 26-27.

For the reasons discussed above, Wilson fails to expressly or inherently disclose each and every limitation of claims 1-2, 7, 12, 14, 23-24, and 26-27. Accordingly, Applicant respectfully requests that the rejections to these claims under 35 U.S.C. § 102(b) be withdrawn.

Rejection to Claims 3-6 and 28 under 35 U.S.C. § 103(a)

To establish a prima facie case of obviousness under 35 U.S.C. § 103, three basic criteria must be met. First, the prior art reference (or references when combined) must disclose or suggest each and every claim limitation. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Finally, there must be a reasonable expectation of success to modify the reference or to combine reference teachings.

Applicant asserts that Wilson fails to disclose or suggest each and every claim limitation of claims 3-6 and 28 for the reasons discussed above with respect to amended independent claim 1, since claims 3-6 and 28 depend, either directly or indirectly, from amended independent claim 1. Accordingly, Applicant respectfully submits that a prima facie case of obviousness has not been established and, therefore, the rejection to claims 3-6 and 28 under 35 U.S.C. § 103(a) should be withdrawn.

Rejection to Claims 16-22 under 35 U.S.C. § 103(a)

Applicant assert that the combination of Wilson and Briggs fails to disclose or suggest each and every claim limitation of independent claim 16. Specifically, Wilson fails to disclose or suggest at least three separate and distinct injection steps of: a hydrogen peroxide solution; an ozone/oxygen mixture; and a compressed gas as required by independent claim 16. Instead, Wilson specifically discloses the simultaneous injection of an oxidant, compressed air and a metal salt catalyst. At most, Wilson discloses two injection steps of either: (1) a first oxidant and

a second oxidant (if the pressurized gas is considered to be an oxidant); *or* (2) a first oxidant and a pressurized gas (if the pressurized gas is considered to be a means for expanding the zone of influence of the reactive solution). Likewise, Briggs specifically teaches a single injection or, at most, two separate injections (col. 6, lines 32 through 43).

With regard to amended claims 17-22, Applicant asserts that the combination of Wilson and Briggs fails to teach or suggest each and every claim limitation thereof for the reasons discussed above with respect to independent claim 16, since claims 17 through 22 depend directly or indirectly from independent claim 16.

Accordingly, Applicant respectfully submits that a *prima facie* case of obviousness has not been established and, therefore, the rejection to claims 16-22 under 35 U.S.C. § 103(a) should be withdrawn.

Objections to Claims 9-11 and 25

The Examiner stated in the second Office Action that claims 9-11 and 25 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Accordingly, Applicant has rewritten claim 25 in independent form, including all of the limitations of claim 1 (without the current amendments thereto). As such, Applicant respectfully submits that claim 25, as amended, is in condition for allowance. Claims 9-11 each directly depend from claim 25 and, as such, are likewise in condition for allowance.

Supplemental Information Disclosure Statement

Along with this Amendment, Applicant submits herewith a Supplemental Information Disclosure Statement and Form PTO/SB/08A. Applicant requests that the Examiner consider the reference cited in the Form PTO/SB/08A in the examination of the subject application. Once

considered, Applicant requests that the Examiner initial and sign the Form PTO/SB/08A where appropriate and return a copy of same to Applicant with the next action.

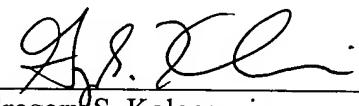
Conclusion

In view of the remarks above and the amendments presented herein, Applicant believes that claims 1-7, 9-12, 14 and 16-28 are in condition for allowance and notice to such effect is respectfully requested. If the Examiner thinks a second telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at the phone number provided below.

If any fees are believed due in connection with the filing of this Amendment, the Commissioner is hereby authorized to charge the such fees to Deposit Account No. 02-2051, referencing Attorney Docket No. 27566-6.

Respectfully submitted,

Dated: December 15, 2006



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